Air Pollution Control Title V Permit to Operate Statement of Basis for Permit No. V-SUIT-0052-2014.01 Minor Permit Revision

November 2, 2015



Elm Ridge Exploration Company Ignacio Gas Treating Plant Southern Ute Indian Reservation La Plata County, Colorado

## **Description of Permit Revision**

On July 31, 2015, the Southern Ute Indian Tribe Air Quality Program (AQP) received a minor permit revision application from Elm Ridge Exploration Company (Elm Ridge) for the Ignacio Gas Treating Plant. Elm Ridge requested permit revisions to (1) update the permit to account for the replacement of two 1,265 horsepower (hp) spark-ignited (SI) four-stroke lean-burn (4SLB) natural gas-fired compressor engines identified in the permit as emission units E1 and E2, with two new 1,366 hp SI 4SLB natural gas-fired compressor engines, and (2) correct the engine model numbers for two natural gas-fired compressor engines identified as emission units E3 and E4.

The replacement engines are subject to the applicable requirements of 40 CFR 60 Subpart JJJJ for SI natural gas-fired engine with a maximum engine power greater than or equal to 500 hp manufactured on or after July 1, 2007, and the applicable requirements of 40 CFR 63 Subpart ZZZZ for new 4SLB stationary RICE with a site rating of more than 500 brake HP located at major source of HAP emissions. These applicable requirements were already contained in the previous operating permit (No. V-SUIT-0052-2014.01) and the replacement engines have been added to the list of emission units subject to these applicable requirements.

Specifically, the following revisions have been made to this permit:

Section I.B. - Source Emission Points - Table 1 - Emission Units

- Revised the emission unit description in Table 1 to reflect the replacement of natural gasfired compressor engines emission units E1 and E2 with new natural gas-fired compressor engines, also identified as emission units E1 and E2
- Corrected the engine model numbers for emission units E3 and E4

Section II. - Site Specific Requirements

- Added emission units E1 and E2 to the list of emission units subject to the 40 CFR 60 Subpart JJJJ regulatory requirements
- Added emission units E1 and E2 to the list of emission units subject to the 40 CFR 63 Subpart ZZZZ regulatory requirements

Additionally, the Potential to Emit Table has been revised to reflect the emission changes resultant from the replacement of natural gas-fired compressor engines, emission units E1 and E2, with new natural gas-fired compressor engines.

Revised Potential to Emit Elm Ridge Exploration Company, Ignacio Gas Treating Plant

	Regulated Air Pollutants <sup>1,2,3,4,5,6,7</sup> in tpy								
Emission Unit ID									
	NOx	voc	SO <sub>2</sub>	PM <sub>10</sub>	СО	Lead	Total HAPs	Largest Single HAP (CH <sub>2</sub> O)	GHGs (CO <sub>2</sub> e mtpy)
E1	13.2	7.9	0.6	0.4	42	0.0	5.6	5.0	7,050
E2	13.2	7.9	0.6	0.4	42	0.0	5.6	5.0	7,050
E3	13.2	7.9	0.6	0.4	42	0.0	5.6	5.0	7,050
E4	13.2	7.9	0.6	0.4	42	0.0	5.6	5.0	7,050
E5	33.2	3.3	0.6	0.4	20.8	0.0	3.6	2.9	5,458
E6	33.2	3.3	0.6	0.4	20.8	0.0	3.6	2.9	5,458
E7	17.3	3.7	0.6	0.4	22.1	0.0	3.7	3.0	5,668
E8	17.3	3.7	0.6	0.4	22.1	0.0	3.7	3.0	5,668
12a	0.0	3.0	0.0	0.0	0.0	0.0	2.5	0.0	0.0
12b	0.0	2.5	0.0	0.0	0.0	0.0	2.1	0.0	0.0
14	0.0	2.9	0.0	0.0	0.0	0.0	2.2	0.0	0.0
15	0.0	6.8	0.0	0.0	0.0	0.0	0.0	0.0	72
Total IEUs	1.9	0.1	0.3	0.1	1.6	0.0	0.3	0.0	2,350
Total	155.7	60.9	5.1	3.3	255.4	0.0	44.1	31.8	52,874

Uncontrolled NOx, CO, VOC, and CH2O emissions for Engine Units E1, E2, E3, and E4 are based on the manufacturer specified g/hp-hr ratings at 100% load

- <sup>2</sup> Uncontrolled CO, VOC, and CH2O emissions for Engine Units E5, and E6, are based on the manufacturer specified g/hp-hr ratings at 100% load.
- Uncontrolled NOx emissions for Engine Units E5 and E6 are based on the manufacturer specified g/hp-hr ratings at 55% load
- <sup>4</sup> Uncontrolled NO<sub>x</sub>, CO, VOC and CH<sub>2</sub>O emissions for Engine Units E7 and E8 are based on the manufacturer specified g/hp-hr ratings at 100% load
- <sup>5</sup> HAP emissions for Engine Units E1, E2, E3, E4, E5, E6, E7, and E8 were calculated using the highest emissions factor from a composite of manufacture's specifications, AP-42, GRI field data, and GRI literature data.
- <sup>6</sup> Uncontrolled dehydrator emissions based on GRI-GLY-Calc modeled emissions.
- <sup>7</sup> Heater/reboiler emissions were calculated using AP-42 emission factors.

AQP is making these revisions as a minor permit revision in accordance with RAC 2-111(3). The permit will be reissued as permit number V-SUIT-0052-2014.01.

For specific applicability information regarding the Part 70 permit for this facility, please reference the Statement of Basis for permit number V-SUIT-0052-2014.00.